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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attn: Office of Petitions

**Petition for Reviving of Patent Application for  
Patent Application No 10/706,281**

In re application of: )  
Carlos Bianchim )  
Serial Number: 10/706,281 )  
Filed: November 13, 2003 )  
For: Electronic Ballast for the Control )  
of HO Florescent Lamps )  
Examiner: Tuyet Thi Vo )

Petitions Attorney  
Mail Stop Petition  
Commissioner of Patents  
Washington, D.C. 22313-1450

Dear Attorney:

Petitioner is respectfully requesting the Reviving of Patent Application for  
Patent Application No 10/706,281 as it was assigned to the wrong Customer Number and  
Applicant did not received notice of an Office Action from the Office.

Respectfully submitted,

  
Jeffrey M. Furr, Esq.  
Registration No. 38,146



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**Request for Petition for Reviving of Patent Application for  
Patent Application No 10/706,281**

Applicant contents that Patent Application No. 10/706,281 went Abandon due to an error at the Patent Office and respectfully requests that the Application be revived.

On April 18, 2005 Applicant filed a Response to a Non-Final Office Action as shown in the attached Image File Wrapper from Private Pair. Included in this Response was a Change of Power of Attorney Request (attached) to change the Attorney of Record to Customer Number, 29569 which is the Customer Number of Jeffrey Furr. Jeffrey Furr also signed the Response with his Registration Number.

The Office Assigned the Customer Number of Howison, Thoma & Arnott, L.L.P. which Applicant believes to be 29560 to the Patent Application. Applicant believes that this was a keying mistake since only one number was off.

A Notice of Non-Complaint Amendment was issued on April 29, 2005 based on the drawings. This was mailed out to Howison, Thoma & Arnott, L.L.P. who did not respond. It does not appear that they notified the Patent Office that this was not their case.

From my discussions with the Examiner, it appears that having not received a response the Examiner called Howison, Thoma & Arnott, L.L.P. to confirm that the case was to go abandon and for some reason not known to the Applicant the Examiner received that confirmation from the law firm even though Howison, Thoma & Arnott, L.L.P. did not and does not represent the Applicant and had no authority on this case. The Examiner Abandoned the Application on September 9, 2005 based on this confirmation.

Applicant found out about the Abandonment only after doing a routine search on the Application to check on the status. Since then the Applicant has discussed the Case with the Examiner and the Examiner's Supervisor and has prepared this petition based on their comments.

Applicant has attached corrected drawings that should address the Non-compliance issue and respectfully asks that the Petitions Office grants Applicant's plea to revive the application and forward it on to the Examiner for Continued Examination.


I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Signed at Johnstown, Ohio, this 12th day of May, 2006

Jeffrey Furr  
Registration No. 38,146  
253 N. Main Street  
Johnstown, Ohio 43031


I hereby certify that on the date below this document and referenced attachments, if any, will be deposited with the U.S. Postal Service as first class mail in an envelope addressed to "Mail Stop Petitions, COMMISSIONER FOR PATENTS, WASHINGTON, DC 22313-1450."

May 12, 2006

  
\_\_\_\_\_  
Jeffrey M. Furr, Esq.  
Registration No. 38,146

I hereby certify I have transmitted this paper by fax to the Patent and Trademark Office at 571-273-8300 on May 12, 2006.

May 12, 2006

  
\_\_\_\_\_  
Jeffrey M. Furr, Esq, Reg. No. 38,146

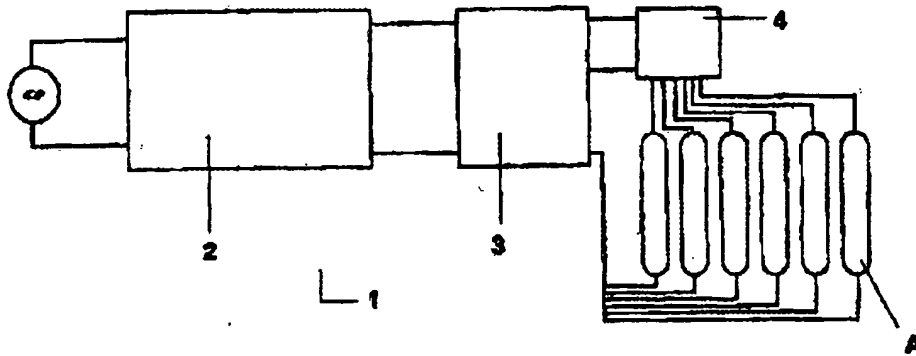


04/18/2005 23:45

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Replacement  
16 / 706, C81  
Bian chim  
11/13/2003

PAGE 13



**Fig. 1**

*Replacement*  
 101706, 281  
 Branchim  
 11/13/2003

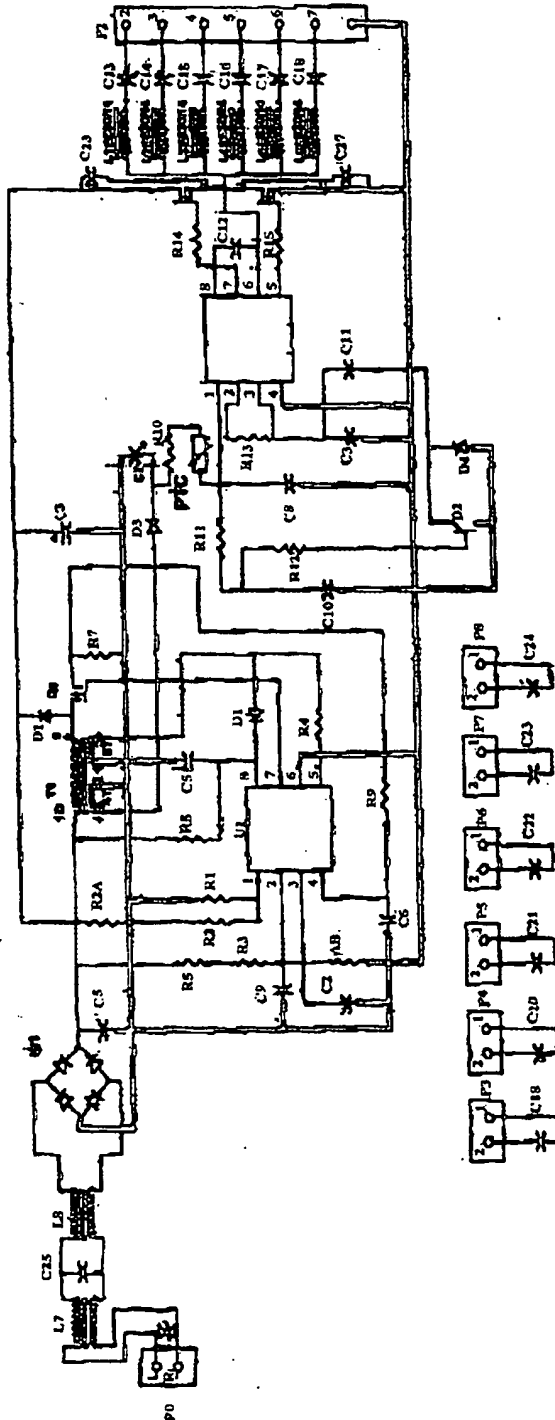


Fig. 2



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10/706,281

ELECTRONIC BALLAST FOR THE CONTROL OF HO FI

Select New Case	Application Data	Transaction History	Image File Wrapper	Foreign Priority	Published Documents	Address/Attorney/Agent
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### Bibliographic Data

Application Number:	10/706,281	Customer Number:
Filing or 371 (c) Date:	11-13-2003	Status:
Application Type:	Utility	Status Date:
Examiner Name:	VO, TUYET THI	Location:
Group Art Unit:	2821	Location Date:
Confirmation Number:	5636	Earliest Publication
Attorney Docket Number:	023853-00030	Earliest Publication Date:
Class / Subclass:	315/247	Patent Number:
First Named Inventor:	Carlos Bianchim , Curitiba, (BR)	Issue Date of Patent:

Title of Invention: ELECTRONIC BALLAST FOR THE CONTROL OF HO FI

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10/706,281

ELECTRONIC BALLAST FOR THE CONTROL OF HO FI

Select New Case	Application Data	Transaction History	Image File Wrapper	Foreign Priority	Published Documents	Address & Attorney/Ag
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This application is officially maintained in electronic form. To View: Click the desired Print: Check the desired document(s) and click Start Download.

## Available Documents

Mail Room	Date	Document Description	Document Category	Page Co
	09-01-2005	<a href="#">Abandonment</a>	PROSECUTION	
	04-29-2005	<a href="#">Miscellaneous Action with SSP</a>	PROSECUTION	
	04-18-2005	<a href="#">Fee Worksheet (PTO-875)</a>	PROSECUTION	
	04-18-2005	<a href="#">Claims Worksheet (PTO-2022)</a>	PROSECUTION	
	04-18-2005	<a href="#">Informal or Non-Responsive Amendment</a>	PROSECUTION	
	04-18-2005	<a href="#">Specification</a>	PROSECUTION	
	04-18-2005	<a href="#">Claims</a>	PROSECUTION	
	04-18-2005	<a href="#">Applicant Arguments/Remarks Made in an Amendment</a>	PROSECUTION	
	04-18-2005	<a href="#">Drawings - Amendment Not Entered</a>	PROSECUTION	
	04-18-2005	<a href="#">Power of Attorney (may include Associate POA)</a>	PROSECUTION	
	04-18-2005	<a href="#">Extension of Time</a>	PROSECUTION	
	12-17-2004	<a href="#">Non-Final Rejection</a>	PROSECUTION	
	12-17-2004	<a href="#">Notice of Formal Drawings Required</a>	PROSECUTION	
	12-17-2004	<a href="#">List of references cited by examiner</a>	PRIOR ART	
	12-17-2004	<a href="#">Index of Claims</a>	PROSECUTION	
	12-17-2004	<a href="#">Search information including classification, databases and other search related notes</a>	PROSECUTION	
	12-13-2004	<a href="#">Examiner's search strategy and results</a>	PROSECUTION	
	04-05-2004	<a href="#">Oath or Declaration filed</a>	PROSECUTION	
	04-05-2004	<a href="#">Foreign Priority Papers Filed</a>	PROSECUTION	
	02-10-2004	<a href="#">Pre-Exam Formalities Notice</a>	PROSECUTION	

11-13-2003	<a href="#">Fee Worksheet (PTO-875)</a>	PROSECUTION
11-13-2003	<a href="#">Transmittal letter</a>	PROSECUTION
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11-13-2003	<a href="#">Abstract</a>	PROSECUTION
11-13-2003	<a href="#">Drawings</a>	PROSECUTION

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*If you need help:*

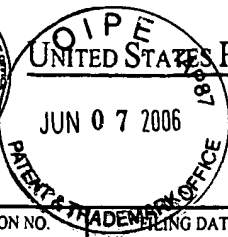
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,281	11/13/2003	Carlos Gabriel Bianchim	023853-00030	5636

29560 7590 09/01/2005

HOWISON, THOMA & ARNOTT, L.L.P.  
P.O. BOX 741715  
DALLAS, TX 75374-1715

EXAMINER

VO, TUYET THI

ART UNIT	PAPER NUMBER
----------	--------------

2821

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



ST

# **Notice of Abandonment**

Application No.

10/706,281

Applicant(s)

BIANCHIM, CARLOS  
GABRIEL

Examiner

Tuyet Vo

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

This application is abandoned in view of:

1. ☒ Applicant's failure to timely file a proper reply to the Office letter mailed on 17 December 2004.
  - (a) ☐ A reply was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply (including a total extension of time of \_\_\_\_\_ month(s)) which expired on \_\_\_\_\_.
  - (b) ☐ A proposed reply was received on \_\_\_\_\_, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection.  
(A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
  - (c) ☐ A reply was received on \_\_\_\_\_ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
  - (d) ☒ No reply has been received.
2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
  - (a) ☐ The issue fee and publication fee, if applicable, was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
  - (b) ☐ The submitted fee of \$ \_\_\_\_\_ is insufficient. A balance of \$ \_\_\_\_\_ is due.  
The issue fee required by 37 CFR 1.18 is \$ \_\_\_\_\_. The publication fee, if required by 37 CFR 1.18(d), is \$ \_\_\_\_\_.
  - (c) ☐ The issue fee and publication fee, if applicable, has not been received.
3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
  - (a) ☐ Proposed corrected drawings were received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply.
  - (b) ☐ No corrected drawings have been received.
4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6. ☐ The decision by the Board of Patent Appeals and Interference rendered on \_\_\_\_\_ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7. ☒ The reason(s) below:

Abandonment of the application has been confirmed by Mr. George Oram (Reg. No. 27,931) on August 30, 2005.

  
TUYET VO  
PRIMARY EXAMINER

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,281	11/13/2003	Carlos Gabriel Bianchim	023853-00030	5636

29560 7590 04/29/2005

HOWISON, THOMA & ARNOTT, L.L.P.  
P.O. BOX 741715  
DALLAS, TX 75374-1715

EXAMINER

VO, TUYET THI

ART UNIT	PAPER NUMBER
2821	

DATE MAILED: 04/29/2005

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ALEXANDRIA, VA 22313-1450  
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Notice of Non-Compliant Amendment (37 CFR 1.121)

The amendment document filed on 4-18-05 is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121. In order for the amendment document to be compliant, correction of the following item(s) is required. Only the corrected section of the non-compliant amendment document must be resubmitted (in its entirety), e.g., the entire "Amendments to the claims" section of applicant's amendment document must be re-submitted. 37 CFR 1.121(h).

THE FOLLOWING CHECKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- ☐ 1. Amendments to the specification:
- ☐ A. Amended paragraph(s) do not include markings.
  - ☐ B. New paragraph(s) should not be underlined.
  - ☐ C. Other \_\_\_\_\_
- ☐ 2. Abstract:
- ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
  - ☐ B. Other \_\_\_\_\_
- ☒ 3. Amendments to the drawings: See attachment
- ☐ 4. Amendments to the claims:
- ☐ A. A complete listing of all of the claims is not present.
  - ☐ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
  - ☐ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following 7 status identifiers: (Original), (Currently amended), (Canceled), (Withdrawn), (Previously presented), (New) and (Not entered).
  - ☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
  - ☐ E. Other: \_\_\_\_\_

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP Sec. 714 and the USPTO website at <http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/officeflyer.pdf>.

If the non-compliant amendment is a **PRELIMINARY AMENDMENT**, applicant is given **ONE MONTH** from the mail date of this letter to supply the corrected section which complies with 37 CFR 1.121. Failure to comply with 37 CFR 1.121 will result in non-entry of the preliminary amendment and examination on the merits will commence without consideration of the proposed changes in the preliminary amendment(s). This notice is not an action under 35 U.S.C. 132, and this **ONE MONTH** time limit is not extendable.

If the non-compliant amendment is a reply to a **NON-FINAL OFFICE ACTION** (including a submission for an RCE), and since the amendment appears to be a *bona fide* attempt to be a reply (37 CFR 1.135(c)), applicant is given a **TIME PERIOD** of **ONE MONTH** from the mailing of this notice within which to re-submit the corrected section which complies with 37 CFR 1.121 in order to avoid abandonment. **EXTENSIONS OF THIS TIME PERIOD ARE AVAILABLE UNDER 37 CFR 1.136(a).**

If the amendment is a reply to a **FINAL REJECTION**, this form may be an attachment to an Advisory Action. The period for response to a final rejection continues to run from the date set in the final rejection, and is not affected by the non-compliant status of the amendment.

*Jackie Williams*  
Legal Instruments Examiner (LIE)

571-272-1640  
Telephone No.



## Revised Amendment Practice

### *Amendments to Drawings*

- ✧ **Replacement drawing sheets** must be identified in the top margin as “Replacement Sheet.”
- ✧ **New drawing sheet** must be identified in the top margin as “New Sheet.”
- ✧ **Annotated drawing sheet** must be identified in the top margin as “Annotated Sheet.”
  - Do not enter Annotated drawing sheets as part of the official drawings for the application.

**PATENT APPLICATION FEE DETERMINATION RECORD**  
Effective December 8, 2004

10-766281

**CLAIMS AS FILED - PART I**

	(Column 1)	(Column 2)
TOTAL CLAIMS		
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	7 minus 20 =	
INDEPENDENT CLAIMS	1 minus 3 =	
MULTIPLE DEPENDENT CLAIM PRESENT <input type="checkbox"/>		

\* If the difference in column 1 is less than zero, enter "0" in column 2

**CLAIMS AS AMENDED - PART II**

4-18-05

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	9	Minus 20	= -
Independent	1	Minus 3	= -
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total		Minus	=
Independent		Minus	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total		Minus	=
Independent		Minus	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

\* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."

\*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

SMALL ENTITY TYPE ☐

OR OTHER THAN SMALL ENTITY

RATE	FEE
BASIC FEE	150.00
X\$ 25=	
X100=	
+180=	
TOTAL	

RATE	FEE
BASIC FEE	300.00
X\$50=	
X200=	
+360=	
TOTAL	

SMALL ENTITY

OR OTHER THAN SMALL ENTITY

RATE	ADDITIONAL FEE
X\$ 25=	
X100=	
+180=	
TOTAL	
ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$50=	
X200=	
+360=	
TOTAL	
ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$ 25=	
X100=	
+180=	
TOTAL	
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RATE	ADDITIONAL FEE
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RATE	ADDITIONAL FEE
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X100=	
+180=	
TOTAL	
ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$50=	
X200=	
+360=	
TOTAL	
ADDIT. FEE	



APR 18 2005

App. No. 10/706,281

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Carlos Gabriel Bianchim  
Appl. No. : 10/706,281  
Filed : 11/13/2003  
Title : Electronic ballast for HO fluorescent lamps  
Grp./A.U. : 2821  
Examiner : Tuyet Thi Vo  
Docket No. : 023853-00030

Honorable Commissioner of for Patents  
Washington, D.C. 20231

Amendment A

Sir:

In response to the Office Action mailed 2004, December 17, please and the above  
application as follows:



App. No. 10/706,281

In the Specifications:

Please delete the current Title and replace with the following:

"Electronic ballast for the Control of HO fluorescent lamps"

App. No. 10/706,281

In the Claims:

1 (cancelled)

2. (new) An device which comprises an electronic ballast for control and activation of ho fluorescent lamps (a) capable of operating from one to six lamps and in any environment, and incorporating a proprietary structure and containing a properly customized and integrated electronic circuit (1), arranged in a protective casing for internal and external environments, and which operates in distribution power from ninety to two hundred and fifty volts at the input of the same connection voltage point, and being formed by a power factor rectification and control block (2), a half-bridge block (3) and an ignition pulse block (4), the power factor rectification and control block (2) having the power to rectify and accommodate the electric energy to unit power factor and, at its input, an electronic circuit for the noise reduction of the electromagnetic interference (EMI); the half-bridge block (3) receiving the conditioned energy from the power factor rectification and control block (2) and making available high frequency energy (square wave) converted to alternating wave of activation and control of energy, protection against complete absence of load, delivery of power to the output blocks for a determined period of time and checking of the presence or not of load; the ignition pulse block (4) being provided with a power supply for the activation via peak-to-peak pulses and a high voltage shock protection system.
3. (new) A device as in claim 1 in which has a power factor correction circuit that utilizes a dedicated commercial integrated circuit that operates in critical conduction current mode, which provides it with a power factor close to the unit.
4. (new) A device as in claim 1 in which has an input circuit for the reduction of electromagnetic interference noises is using two EMI filters with a capacitor between them.
5. (new) A device as in claim 1 in which has an input circuit for the reduction of electromagnetic interference noises is using a plurality of EMI filters with a capacitor between them.

App. No. 10/706,281

6. (new) A device as in claim 1 in which has a protection system that guards the inverter power unit against overheating in the output circuit, in which the circuit controlling it is temporarily disconnected by means of a Positive Thermal Coefficient component.
7. (new) A device as in claim 1 in which said output circuit possesses a dedicated commercial circuit for the lamp ignition and control.
8. (new) A device as in claim 1 in which two capacitors are coupled in parallel with the output switches.
9. (new) A device as in claim 1 in which pre-heating is achieved by increasing the frequency above the nominal operating frequency in permanent regimen voltage for a period of time.
10. (new) A device as in claim 1 in which is capable of normal operation with an input voltage ranging from 90 Volts to 132 Volt.

App. No. 10/706,281

In the Drawings:

Corrected Drawings are attached.

App. No. 10/706,281

**Power of Attorney**

Enclosed herewith is a power of attorney authorizing the named attorneys to act on behalf of the Applicant before the Patent Office for this case.

**REMARKS - General**

By the above amendment, Applicants have amended the title to emphasize the novelty of the invention.

Also applicants have rewritten all claims to define the invention more particularly and distinctly so as to overcome the technical rejections and define the invention patentably over the prior art.

The purpose of the present report is a brief review of the specific characteristics of the patent application no. 10/706,281 filed on November 13, 2003 with the USPTO, entitled "Electronic Ballast for HO Fluorescent Lamps" and having as an inventor Carlos Gabriel Bianchim, in view of other patents mentioned as prior art.

The present report is based on the fact that the patent application no. 10/706,281 dated November 13, 2003, by means of the components and application processes described in the Descriptive Report thereof, does not possess the main requirements for patentability, as it does not represent a novelty in view of the state of the art described in the US Patent 5,574,335 dated November 12, 1996; US Patent 5,563,473 dated October 8, 1996; and US Patent 5,262,699 dated November 16, 1993.

In view of these considerations, the applicant argues the need of a more detailed and comparative description of the object claimed in the patent application no. 10/706,281 dated November 13, 2003, in view of the state of the art claimed in the US Patent 5,574,335 dated November 12, 1996; US Patent 5,563,473 dated October 8, 1996; and US Patent 5,262,699 dated November 16, 1993, since the claimed objects are completely distinct in their conceptions.

A) Patent application no. 10/706,281 dated November 13, 2003 comprises, in its general conception, an electronic ballast which, according to the characteristics thereof, possesses as a basic principle the formation of an electronic piece of equipment intended for the control of HO fluorescent lamps

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incorporating a proprietary structure and containing a properly customized, integrated and complete electronic circuit arranged in a caging as a protection element of the assembly in internal and external environments, being formed by a power factor rectification and control block, a half-bridge block, and an ignition pulse block, so as to make available a device for control and activation of HO fluorescent lamps capable of being operated in any environment and with the specific purpose of controlling from one to six lamps, flexible to the installation needs, depending exclusively on the sum of power of the lamps, which cannot exceed three hundred and ninety watts. Note: HO fluorescent lamps possess high ionization voltage varying from 1500 to 1600 Volts, while normal fluorescent lamps possess low ionization voltage varying from 800 to 900 Volts; therefore, electronic ballasts and, consequently, the electronic circuits thereof, require building designs which are fully different among themselves; HO lamps are almost exclusively intended for large outdoor and industrial applications.

B) US Patent 5,574,335 dated November 12, 1996 comprises, in its general conception, an electronic ballast for fluorescent lamps, i.e., a complete ballast for the control and activation of lamps in any environment, inherently arranged in a caging for internal and external installations with an input voltage ranging from 90 Volts to 250 Volts AC. This ballast is formed by a controlled power factor rectifier, a half-bridge and an ignition pulse block. The purpose of the power factor rectifier and control block is to draw the power factor close to the unit while rectifies and adjusts the power supply. An electronic circuit for the reduction of electromagnetic interference noises is at the input circuit, the half-bridge block receives the rectified and adjusted power supply from the rectification block and the control block makes the high frequency energy (square wave) available, which is then converted to alternating wave for the activation and control of the power supply, protection against absence of load, delivering an output power for a determined period of time and checking the presence of load, the ignition pulse being provided with a power supply for activation via high voltage peak to peak pulses with a protection system.

Comparison:

- US Patent 5,574,335 does not mention, at any moment, its application with six lamps and, consequently, the operation thereof,

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- Patent application no. 10/706,281 possesses a power factor correction circuit completely different from that disclosed in US Patent 5,574,335, for it utilizes a dedicated commercial integrated circuit that operates in critical conduction current mode, which provides it with a power factor close to the unit. That also creates far better conditions for the reduction of electromagnetic interference noises. The input circuit for the reduction/elimination of electromagnetic interference noises is also different, for it utilizes two EMI filters with a capacitor between them, whereas in US Patent 5,574,335 that is the result of using one EMI filter plus another inductor and two capacitors;
- Patent application no. 10/706,281 is provided with a protection system that guards the inverter power unit against overheating in the output circuit, in which the circuit controlling it is temporarily disconnected by means of a component called PTC (Positive Thermal Coefficient) thus avoiding the burning of the output circuit, a possibility that could happen in a scenario of complete absence of load, whereas US Patent 5,574,335 is not provided with this characteristic;
- The output circuit of US Patent 5,574,335 is controlled by square pulses generated by windings of a single transformer, which differs from patent application no. 10/706,281, where the output circuit possesses a dedicated commercial circuit for the lamp ignition and control;
- Patent application no. 10/706,281 possesses two capacitors coupled in parallel with the output switches (MOSFET) thereby allowing a reduction of losses in the same switches, due to the switching, thus improving the circuit performance as a whole and further increases its efficacy, whereas US Patent 5,574,335 is not provided with this characteristic; and
- Patent application no. 10/706,281 possesses a lamp activation circuit with an ignition characteristic that prevents high voltage pulse in case there is no lamp (load), that is, high voltage pulse blocking is instantaneous, whereas US Patent 5,574,335 is not provided with this characteristic.

C) US Patent 5,563,473 dated October 8, 1996 comprises, in its general conception, an electronic ballast for powering from one to six fluorescent lamps (with the possibility of including more lamps), a factory-designed feature. This patent utilizes a power factor pre-regulator followed by a half-bridge output circuit, both controlled by a dedicated commercial electronic circuit. The lamp ignition circuit is carried out by a

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L-C resonant link. The ballast is provided with an electric insulation system between input and output circuits by means of a high frequency transformer.

Comparison:

- The variation in the number of lamps for each ballast in US Patent 5,563,473 is factory-designed, i.e., the number of lamps to be installed in the ballast is defined during manufacturing, being thus impossible for the end user to change this amount according to his/her needs;
- Patent application no. 10/706,281 possesses a fully different input circuit for the reduction/elimination of electromagnetic interference noise, for it utilizes two EMI filters with a capacitor between them, whereas in US Patent 5,563,473, that is the result of using two inductors plus two grounded capacitors;
- Patent application no. 10/706,281 is provided with a protection system that guards the inverter power factor against overheating in the output circuit, in which the circuit controlling it is temporarily disconnected by means of a component called PTC (Positive Thermal Coefficient), thus avoiding the burning of the output circuit, a possibility that could happen in a scenario of complete absence of load, whereas US Patent 5,563,473 is not provided with this characteristic;
- Patent application no. 10/706,281 possesses two capacitors coupled in parallel with the output switches (MOSFET), thereby allowing a reduction of losses in the same switches, due to switching, which improves the circuit performance as a whole and further increases its efficacy, whereas US Patent 5,563,473 is not provided with this characteristic;
- Patent application no. 10/706,281 possesses a lamp activation circuit with an ignition characteristic that prevents high voltage pulse in case there is no lamp (load), that is, high voltage pulse blocking is instantaneous, whereas US Patent 5,563,473 is not provided with this characteristic, i.e., no high voltage detection or blocking system is present;
- US Patent 5,563,473 possesses a pre-heating system that operates by increasing the high voltage level on the lamp cathodes, whereas in the patent application no. 10/706,281, pre-heating is achieved by increasing the frequency above the nominal operating frequency in permanent regimen voltage for approximately 150 ms, thus allowing the cathodes to be pre-heated and later operate in normal conditions,



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without changing the cathodes life, i.e., the durability of the ballast components in general is not put into risk; and

- The electronic circuit present in the patent application no. 10/706,281 is not provided with an electric insulation system between the input and output circuits, i.e., it differs from US Patent 5,563,473 as well, because the latter possesses a transformer to perform this function.

D) US Patent 5,262,699 dated November 16, 1993 comprises, in its general conception, an electronic ballast for fluorescent lamps, more specifically for compact fluorescent lamps without power factor correction, with an EMI (Electromagnetic Interference) filter with a single inductor, and a half-bridge output circuit controlled by pulses provided by a high-frequency transformer.

Comparison:

- US Patent 5,262,699 possesses an extremely simple electronic circuit, whereas patent application no. 10/706,281 presents an electronic circuit which is far more solid and complex in its basic characteristics;
- US Patent 5,262,699 application is exclusively for compact fluorescent lamps up to 20 watts, that is, it is never mentioned its application for HO lamps with at least 80 watts;
- US Patent 5,262,699 does not mention, at any moment, its application with six lamps and, consequently, the operation thereof; it just explains the operation and control of compact fluorescent lamps;
- Patent application no. 10/706,281 possesses a power factor correction circuit completely different from that disclosed in US Patent 5,262,699, for it utilizes a dedicated commercial integrated circuit, that operates in critical conduction current mode, which provides it with a power factor close to the unit. That also creates far better conditions for the reduction of electromagnetic interference noises. The input circuit for the reduction/elimination of electromagnetic interference noises is also different, for it utilizes two EMI filters with a capacitor between them, whereas in US Patent 5,262,699, that is the result of using a single inductor;
- Patent application no. 10/706,281 is provided with a protection system that guards the inverter power factor against overheating in the output circuit, in which the circuit controlling it is temporarily disconnected by means of a component called PTC (Positive Thermal Coefficient), thus avoiding the

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burning of the output circuit, a possibility that could happen in a scenario of complete absence of load, whereas US Patent 5,262,699 is not provided with this characteristic;

- The output circuit in the US Patent 5,262,699 is controlled by square waves generated by windings of a single transformer, which differs from patent application no. 10/706,281, where the output circuit possesses a dedicated commercial circuit for the lamp ignition and control;
- Patent application no. 10/706,281 possesses two capacitors coupled in parallel with the output switches (MOSFET), thereby allowing a reduction of losses in the same switches, due to switching, which improves the circuit performance as a whole and further increases its efficacy, whereas US Patent 5,262,699 is not provided with this characteristic; and
- Patent application no. 10/706,281 possesses an electronic circuit which is capable of normal operation with an input voltage ranging from 90 Volts to 132 Volts, different from US Patent 5,262,699, in which the input voltage ranges from 108 Volts to 132 Volts, i.e., its durability is much shorter.

By means of the above comparison between patent application no. 10/706,281 and US Patent 5,574,335, US Patent 5,563,473 and US Patent 5,262,699, one is able to conclude the following:

- the electronic ballasts shown in the US Patent 5,574,335, US Patent 5,563,473 and US Patent 5,262,699 do not refer, at any moment, to the application with HO fluorescent lamps, only with common fluorescent lamps; their basic configurations do not even allow the application with HO fluorescent lamps;
- the electronic ballasts shown in the US Patent 5,574,335, US Patent 5,563,473 and US Patent 5,262,699 allow the utilization of more than one lamp in their conceptions, even though this capacity is factory-designed, that is, the end user cannot change this capacity, whereas in patent application no. 10/706,281, that is a fully versatile capacity, i.e., the user can directly define it according to his/her application needs, that is, he/she can utilize from one to six HO fluorescent lamps without any modification in the electronic ballast's structure, as it is already prepared for that; and
- the electronic ballasts shown in the US Patent 5,574,335, US Patent 5,563,473 and US Patent 5,262,699 contain electronic circuits with a fully differentiated basic design compared to patent application no. 10/706,281, particularly in their basic configurations and applications.

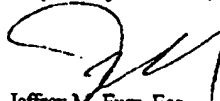
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In the light of the above and certain of having presented the required explanations so that the technical opinion issued by the Office can be reviewed, the appellant requests continued examination of the application with final granting of the patent.

#### Conclusion

For all of the above reasons, applicant submits that the specification and claims are now in proper form, and that the claims all define patentably over prior art. Therefore the applicant submits that this application is now in condition for allowance, which action is respectfully solicited. If the Examiner believes that the present amendments still do not resolve all of the issues regarding patentability of the pending claims, Applicant invites the Examiner to contact the undersigned attorneys to discuss any remaining issues.


Respectfully submitted,



Jeffrey M. Furr, Esq.  
Registration No. 38,146

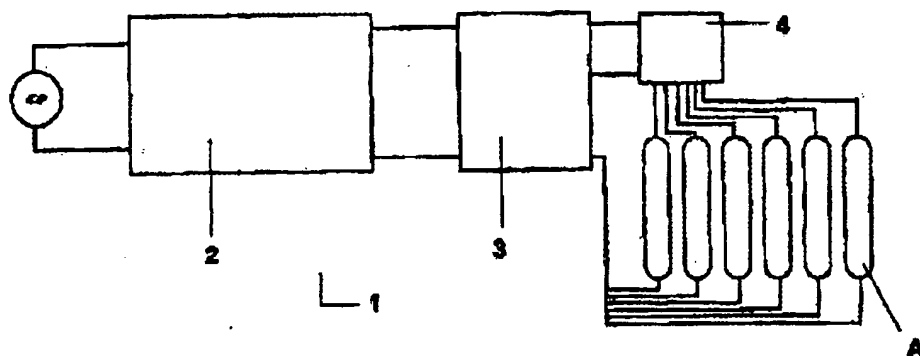
I hereby certify I have transmitted this paper by fax to the Patent and Trademark Office at 703-872-9306 on April 18, 2005.

April 18, 2005.



Jeffrey M. Furr, Esq. Reg. No. 38,146.

16 / 708, 681  
Bianchim  
11/13/2003



**Fig. 1**

101 706, 281  
Branchim  
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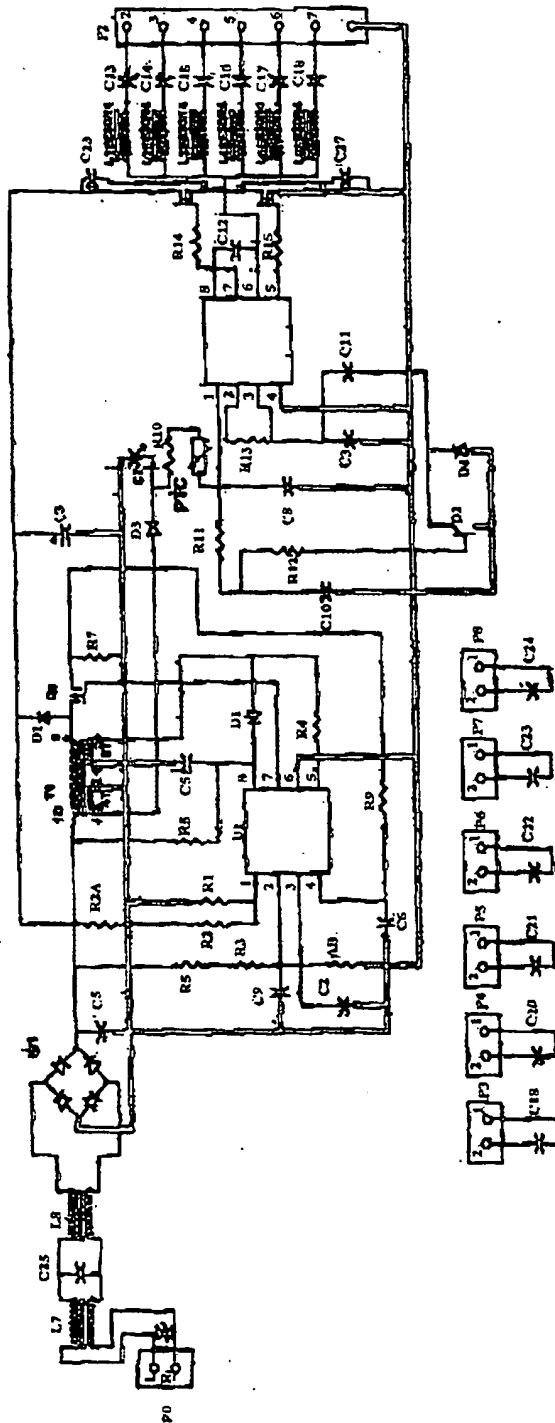


Fig. 2

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Application Number	10/706,281
Filing Date	11/13/2003
First Name of Inventor	Carlton G. Branchin
Title	Electronic Ballast for
Art Unit	2871
Examiner Name	Mr. Tuyen Thi
Agency/Inventor Number	073853-00000

I hereby revoke all previous powers of attorney given in the above-identified application.

I hereby appoint:

☒ Practitioner associated with the Customer Number: 29559

OR

☐ Practitioner(s) named below:

Name	Registration Number

We hereby authorize (or authorize) the practitioner the applicant identified above, under power of attorney in the United States Patent and Trademark Office connected herewith.

Please indicate or change the correspondence address for the above-identified application to:

☒ The address associated with the above-mentioned Customer Number:

OR

☐ The address associated with the name of the inventor:

☐ The name of the inventor:

Address:

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Country: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

I am the:

☒ Applicant/Inventor.

☐ Assignee or holder of the entire interest. See 37 CFR 1.311.

Signature of Applicant or Assignee or Holder:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name: Mr. Carlton G. Branchin

Title and Company: President of Recognition para o desenvolvimento - lctad

NOTE: Signatures of the inventor or assignee of the entire interest in the application must be provided. Signatures of the inventor or assignee of the entire interest in the application must be provided.

☐ True of \_\_\_\_\_

Best Available Copy

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PTO/SB/22 (12-04)

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<b>PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)</b> <b>FY 2005</b> <i>(Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).)</i>		Docket Number (Optional) 023853-00030	
Application Number 10/706,281		Filed 11/13/2003	
For <u>Electronic ballot for Ho Fluorescence Lamp</u>			
Art Unit 2921		Examiner V0	

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above identified application.

The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):

	Fee	Small Entity Fee	
<input checked="" type="checkbox"/> One month (37 CFR 1.17(a)(1))	\$120	\$60	\$ 60
<input type="checkbox"/> Two months (37 CFR 1.17(a)(2))	\$450	\$225	\$
<input type="checkbox"/> Three months (37 CFR 1.17(a)(3))	\$1020	\$510	\$
<input type="checkbox"/> Four months (37 CFR 1.17(a)(4))	\$1590	\$795	\$
<input type="checkbox"/> Five months (37 CFR 1.17(a)(5))	\$2160	\$1080	\$

☒ Applicant claims small entity status. See 37 CFR 1.27.

☐ A check in the amount of the fee is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☐ The Director has already been authorized to charge fees in this application to a Deposit Account.

☐ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ I have enclosed a duplicate copy of this sheet.

**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

I am the ☐ applicant/inventor.

☐ assignee of record of the entire interest. See 37 CFR 3.04/20/2005 BROWNER 000000035 10706281  
Statement under 37 CFR 3.73(b) is enclosed (Form PTO/SB/96).

☒ attorney or agent of record. Registration Number 50/PET

☐ attorney or agent under 37 CFR 1.34.  
Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

\_\_\_\_\_  
Signature

4/16/2005  
Date

Jeffrey Fum  
Typed or printed name

740-962-2261  
Telephone Number

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☐ Total of \_\_\_\_\_ forms are submitted.

This collection of information is required by 37 CFR 1.136(a). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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